

U.S. Patent Application No. 09/996,518
Reply to Office Action dated April 17, 2006

PATENT
450100-03654

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A molding die apparatus for obtaining a unitary molded disc-shaped product by injecting molten resin into a cavity formed when closing a set of dies, the ~~molding die apparatus~~ comprising:

a vacuum apparatus including a vacuum tank disposed within said die apparatus in close proximity to said cavity and circumferentially above said cavity; and [[,]]

exhaustion means connecting said vacuum tank to said cavity for exhausting air and/or fluid directly from said cavity by said vacuum apparatus.

wherein said vacuum apparatus communicates with a circumferential portion of said cavity through said exhaustion means

~~wherein air and/or fluid inside said cavity is exhausted directly by said vacuum apparatus without passing through any vacuum lines or conduits.~~

2. (Canceled)

3. (Currently Amended) The molding die apparatus according to ~~claim 2~~ claim 1, wherein said vacuum apparatus includes a valve mechanism for controlling ~~open~~ opening and close-closing of passage between said vacuum tank and said ~~exhaustion channel~~ means.

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4. (Currently Amended) The molding die apparatus according to claim 1, wherein said vacuum tank has volume capacity at least larger than a total volume capacity of said cavity plus said exhaustion ~~channel~~ means.

5 - 6. (Canceled)

7. (New) A molding die apparatus for obtaining a unitary molded disc-shaped product by injecting molten resin into a cavity formed when closing a set of dies, the apparatus comprising:

a vacuum apparatus including a vacuum tank disposed within said die apparatus in close proximity to said cavity and circumferentially above said cavity; and

an exhaustion channel connecting said vacuum tank to said cavity for exhausting air and/or fluid by said vacuum apparatus directly from said cavity,

wherein said vacuum apparatus communicates with a circumferential portion of said cavity through said exhaustion channel.

8. (New) The molding die apparatus according to claim 7, wherein said vacuum apparatus includes a valve mechanism for controlling opening and closing of passage between said vacuum tank and said exhaustion channel.

9. (New) The molding die apparatus according to claim 7, wherein said vacuum tank has volume capacity at least larger than a total volume capacity of said cavity plus said exhaustion channel.